

REMARKS

Claims 1-26 and 36-46 are pending in the present application. Claims 8-26 and 40-46 have been withdrawn from consideration. Claims 27-35 are cancelled in this amendment. In the Office Action dated January 31, 2005, the Examiner rejected claims 1, 3-6, 27, and 29-31 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application No. 2003/0217665 to Rennard ("the Rennard application"). Claims 2 and 28 were rejected under 35 U.S.C. 102(b) as being anticipated by the Rennard application in view of U.S. Patent No. 1,650,908 to Ramsey ("the Ramsey patent"). Claims 7 and 35 were rejected under 35 U.S.C. 102(b) as being anticipated by the Rennard application in view of U.S. Patent No. 4,895,076 to Looger, deceased et al. ("the Looger patent") and the Ramsey patent. Claims 36-39 were rejected under 35 U.S.C. 102(b) as being anticipated by the Looger patent in view of the Ramsey patent. Applicants understand that dependent claims 40-46 are withdrawn from consideration. However, upon allowance of their respective base claims, dependent claims 40-46 will be allowed.

Examiner Interview Summary

Applicants would like to thank Examiner Nguyen for the phone interview conducted on March 25, 2005. During the interview, Applicants attorney and Examiner Nguyen discussed the patentability of the pending claims. Additionally, during the interview Examiner Nguyen argued that the Rennard application discloses in Figure 5 a repetitively and identically applied code to a component of an ammunition cartridge. Applicants arguments discussed below address both the rejection in the Office Action dated January 31, 2005 and the Examiner's assertion that the Rennard application discloses in Figure 5 a repetitively and identically applied code to a component of an ammunition cartridge.

Embodiments Disclosed in Present Application in Comparison to the Cited Art

The embodiments disclosed in the present application will now be discussed in comparison to the cited references. Of course, the discussion of the disclosed embodiments, and the discussion of the differences between the disclosed embodiments and the cited references, do not define the scope or interpretation of any of the claims. Instead, such discussed differences merely help the Examiner appreciate important claim distinctions discussed thereafter.

The present application is directed, in part, to ammunition having an identifier. One embodiment includes an ammunition cartridge 10 for a firearm having a bullet 12 with a first identification surface positioned thereon. The ammunition cartridge 10 further includes a casing 14 that retains the bullet 12. The casing 14 further includes a second identification surface. An identifier including a code 31 comprised of a plurality of optically identifiable characters may be positioned on at least one of the first and the second identification surfaces to identify the origin of the ammunition article and repetitively applied to the first and/or second identification surfaces. In another embodiment, the projectile comprises a mass of generally spherically-shaped pellets and a wad is positioned within the casing having a third identification surface that may contain the identifier.

In one embodiment shown in Figure 2, the identifier includes a code prefix 32 that generally includes similar characters, such as dot, dimples or other similarly recognizable figures. The identifier also includes a code body 34 that includes a plurality of readily recognizable and distinct characters, which may be a serial arrangement of numbers and/or letters, or even a randomly selected arrangement of numbers and/or letters. In one embodiment, the plurality of optically identifiable characters may be a combination of alphanumeric characters. In another embodiment, the optically identifiable characters may be selected from the characters available on a standard keyboard or a 256 character set. Thus, the code 31 may be easily interpreted by a person, such as a police officer, at a crime scene.

As shown in Figure 2a, the identifiers may be identically reproduced numerous times on a portion of the bullet 12 (e.g., the base 26) or the casing 14. In some embodiments, the identifier may be applied to the identification surface so as to occupy substantially all of the surface area of the identification surface that it is applied to. In another embodiment, the codes 31 may be applied to the web portion 24 of the casing 14, which is particularly resistant to alteration or eradication because it is deeply recessed within the casing 14. Furthermore, the code 31 may be more easily applied to the web portion 24 of the casing 14 by using a process such as, for example, laser ablation. In yet another embodiment, the identifiers may be applied to a portion of the bullet 12 or the casing 14 so that the codes 31 are formed in identifiable rows and are staggered so that the codes 31 do not form identifiable columns. The codes 31 may also be applied to the base 26 of the bullet 21 in a circular arrangement, or in still other arrangements. The placement of the code on the base 26 of the bullet 21 so that the code is symmetrically

placed thereon may also advantageously prevent the bullet from becoming unbalanced due to the application of the code 31. Thus, the ballistic properties of the bullet will not be altered due to the application of the code 31. The repetitive placement of the code 31 on at least one of the identification surfaces of the ammunition cartridge advantageously helps to ensure that at least one of the codes 31 (Figure 2) remains intact and identifiable despite deformation and/or fragmentation of the bullet 12.

The Examiner has cited the Rennard application, which is directed to an ammunition cartridge having an identifiable casing. The ammunition cartridge includes a projectile 20 coupled to a casing 12 that includes an identifier. The identifier may include an alphanumeric code. As most clearly shown in Figure 5, the casing 12 has a single, code (i.e., reference numeral 42) that is applied to a surface thereof. The reference numeral 42 is not repetitively applied to the casing 12. The Rennard application clearly describes and labels the entire code (00,000,000,001) as the reference numeral 42. (See, paragraph 28 of the Rennard application). The Rennard application does not describe, for example, the first three characters of the reference numeral 42 ("00,") as a code and the fifth through seventh characters ("00,") as a second identically applied code. Throughout the Rennard application, the identifier (i.e., a tracking number as it is referred to in the Rennard application) is only shown and described as being singly applied to the casing 12. Figure 5 interpreted in view of its corresponding written description, only teaches one of ordinary skill in the art that a single code is applied to the casing 12. The Rennard application does not teach applying the code to a bullet. Accordingly, the Rennard application does not recognize or teach the importance of repetitively and identically applying a code to a bullet to increase the likelihood that a code remains intact and identifiable upon discharge from a firearm and impact with a target. Since the code is applied only to the casing, there would not be a strong need to repetitively and identically apply a code to the casing because the casing is not typically damaged in the way the projectile is during firing and impact with a target. In other words, survivability of the code is not as significant of problem on casing. This further supports the Applicants' position that the code is not identically and repetitively applied to the casing 12.

In view of its written description and the fact that the code is applied to the casing, Applicants submit that the Examiner's characterization of the teachings of the Rennard application are incorrect. The Rennard application does not teach or fairly suggest to one of

ordinary skill in the art a repetitively and identically applied code applied to a component of an ammunition cartridge.

The Rennard application actually teaches away from repetitively and identically applying an alphanumeric code to the casing 12 because it stresses the importance that the reference numeral 42 should be human readable. (See paragraph 27 of the Rennard application). If the reference numeral 42 was repetitively and identically applied to the casing 12 it should be made substantially smaller, thus, degrading the human readability thereof. Even if the reference numeral 42 can be parsed arbitrarily into discrete codes, such codes are not repetitively and identically applied to the casing 12.

The Examiner has also cited the Looger patent. The Looger patent is directed to a training round. As best shown in Figure 3, a projectile 16 includes a housing structure 18. The structure 18 includes a plurality of pellets 30 formed of lead or another suitable material that are bonded together using a bonding material 31, and located in a front section 28 between a ball 36 and the interior of the structure 18 defined in-part by strip sections 26. The pellets 30 are employed to impart a desired weight to the projectile 16. The ball 36 has paint or some other marking agent inside of it so that upon firing and impact with a target, the point of impact of the projectile 16 is marked. The Looger patent is clearly not directed to shotgun ammunition and, thus, does not contain a component that can fairly be described to one of ordinary skill in the art as a wadding. For example, in the context of an ammunition cartridge, *Merriam-Webster OnLine Dictionary* describes a wad or wadding as “a felt or paper disk used to separate the components of a shotgun cartridge.” The Looger patent lacks a structure that can reasonably be considered a wadding in the context of the ammunition cartridge arts. Furthermore, the Looger patent is not directed to a shotgun cartridge, which a wadding is used in.

The Examiner has also cited the Ramsey patent for disclosing an identifiable ammunition article. Referring to Figure 1, a bullet 1 includes numerals 2 impressed on a base portion of the bullet 1. A filler line 4 occupies the remaining space on the base of the bullet 1 to indicate the absence of higher numbers. In Figure 4, Ramsey discloses that the designating numerals 2 are positioned along the edge of the jacket material on the bullet 1, so that the numerals 2 may be impressed into a material that is relatively harder than the core material, which is comprised of lead. The filler line 4 is also impressed into the edge of the jacket material to prevent the impression of additional numerals. Applicants note that the numerals 2 impressed

on the base portion of the bullet 1 are segregated into a single group of numerals 2, which are bounded by the filler line 4, so that the repetition of the single group of numerals 2 is effectively prevented. Accordingly, the Ramsey patent fails to disclose or fairly suggest, the repetitive and identical application of a code to a component of an ammunition cartridge.

Claims and Rejections

Turning now to the claims, patentably distinct differences between the actual claim language and the applied references will be specifically pointed out. Claim 1 recites, in part, “an identifier positioned on at least one of the first and the second identification surfaces, the identifier further including a code comprised of a plurality of optically identifiable characters, the plurality of optically identifiable characters comprising a combination of alphanumeric characters, the code being identically and repetitively applied to the identification surfaces.” None of the cited references teach or fairly suggest the combination of limitations recited above. Specifically, the Rennard application does not teach or fairly suggest employing a code comprised of a plurality of optically identifiable characters, the code being *identically and repetitively* applied to the identification surfaces. Claims depending from claim 1 are also allowable due to depending from an allowable base claim and further in view of the additional limitations recited in the dependent claims.

Claim 36, recites “a projectile comprising a mass of generally spherically-shaped pellets; a casing that is coupled to the projectile; a wad positioned within the casing; and an identifier positioned on at least one of the projectile, casing, and wad, the identifier further including a code comprised of a plurality of optically identifiable characters, the code being identically and repetitively applied to the identification surfaces.” None of the cited references teach or fairly suggest the combination of limitations recited above. Specifically, the Rennard application does not teach or fairly suggest employing a code comprised of a plurality of optically identifiable characters, the code being *identically and repetitively* applied to the identification surfaces. Furthermore, none of the cited references teach or fairly suggest an ammunition cartridge having a wad positioned within its casing. Claims depending from claim 27 are also allowable due to depending from an allowable base claim and further in view of the additional limitations recited in the dependent claims.

All of the claims remaining in the application (claims 1-26 and 36-46) are now clearly allowable. Favorable consideration and a timely Notice of Allowance are earnestly solicited.

Respectfully submitted,

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